during the transform process, filtering quantized signal samples by applying scaled filter coefficients, the signals samples first being filtered along the image in a first direction and then along the image in a second direction, so that at the completion of the transform process of the image, at least a selected portion of the transformed signal samples are inverse quantized.

3.   (Amended) The method of claim 1, wherein the first domain is the frequency domain, the second domain is the spatial domain, the first direction is one of row-wise and column-wise, and the second direction is the other of row-wise and column-wise.

17.   (Amended) A device comprising.

an integrated circuit;

said integrated circuit having input ports to receive signal samples associated with at least one image;

said integrated circuit including digital circuitry;

said digital circuitry having a configuration to apply a process to transform the signal samples from a first domain to a second domain and during the transform process, filtering signal samples, by first applying scaled filter coefficients to signal samples along the image in a first direction and then applying scaled filter coefficients to signal samples along the image in a second direction, at least a selected portion of the transformed signal samples are inverse quantized, the transform process comprises an inverse discrete wavelet transform (IDWT) to decompose signal samples into two or more subbands.

19.   (Amended) The device of claim 17, wherein the first domain is the frequency domain, the second domain is the spatial domain, the first direction is one of row-wise and column-wise, and the second direction is the other of row-wise and column-wise.

24.   (Amended) An article comprising: a storage medium, said storage medium having stored thereon, instructions, that when executed by a system to execute said instructions, results in:

applying a process to transform signal samples associated with at least one image from a first domain to a second domain, the transform process comprises an inverse discrete wavelet transform (IDWT) to decompose signal samples into two or more subbands; and

during the transform process, filtering signal samples, by first applying scaled filter coefficients to signal samples along the image in a first direction and then applying scaled filter coefficients to signal samples along the image in a second direction, so that at the completion of the transform process of the image, at least a selected portion of the transformed signal samples are inverse quantized.

25.   (Amended) The article of claim 24, wherein the first domain is the frequency domain, the second domain is the spatial domain, the first direction is one of row-wise and column-wise, and the second direction is the other of row-wise and column-wise.

30.   (New) A method of inverse quantizing quantized signal samples of an image during image decompression comprising:

applying a process to transform the quantized signal samples from a first domain to a second domain; and

during the transform process, filtering quantized signal samples by applying scaled filter coefficients, the signals samples first being filtered along the image in a first direction and then along the image in a second direction, so that at the completion of the transform process, of the image, at least a selected portion of the transformed signal samples are inverse quantized,

scaling in a first mutually orthogonal direction comprises:

~~applying the scale factor $\sqrt{Q(LL_k)}$ to each filter coefficient in the low pass filtering~~ operation to subbands LL_k and HL_k;

applying the scale factor $\dfrac{Q(LH_k)}{\sqrt{Q(LL_k)}}$ to each filter coefficient in the high pass filtering operation to subband LH_k; and

applying the scale factor $\dfrac{Q(HH_k)\sqrt{Q(LL_k)}}{Q(HL_k)}$ to each filter coefficient in the high pass filtering operation to subband HH_k;

$Q(HL_k)$, $Q(HH_k)$, $Q(LH_k)$, and $Q(LL_k)$ being the quantization thresholds of the subbands, HL, HH, LH, and LL in the kth level, respectively, and $Q(LL_k)$ being equal to 1, when level k is less than K.

31.   (New) A method of inverse quantizing quantized signal samples of an image during image decompression comprising:

applying a process to transform the quantized signal samples from a first domain to a second domain; and

during the transform process, filtering quantized signal samples by applying scaled filter coefficients, the signals samples first being filtered along the image in a first direction and then along the image in a second direction, so that at the completion of the transform process,

of the image, at least a selected portion of the transformed signal samples are inverse quantized,

scaling in a second direction comprises:

applying the scale factor $\sqrt{Q(LL_k)}$ to each filter coefficient in the low pass filtering operation over the LL_k and LH_k subband; and

4